

```

1  /*****
2
3      Online C Compiler.
4      Code, Compile, Run and Debug C program online.
5      Write your code in this editor and press "Run" button to compile and execute
6
7      *****/
8
9
10 #include<stdio.h>
11 #include<ctype.h>
12
13 #define SIZE 50
14
15 char stack[SIZE];
16 int top=-1;
17
18 void push(char elem)
19 {
20     stack[++top]=elem;
21 }
22
23 char pop()
24 {
25     return stack[top--];
26 }
27
28 int pr(char symbol)
29 {
30     if(symbol=='^')
31     {
32         return(3);
33     }
34     else if(symbol=='*' || symbol=='/')
35     {
36         return(2);
37     }
38     else if(symbol=='+' || symbol=='-')

```

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38     else if(symbol=='+' || symbol=='-')
39     {
40         return(1);
41     }
42     else
43     {
44         return(0);
45     }
46 }
47
48 int main()
49 {
50     char infix[50], postfix[50], ch, elem;
51     int i=0, k=0;
52
53     printf("Enter the Infix expression: ");
54     scanf("%s", &infix);
55
56     push('#');
57
58     while((ch=infix[i++])!='\0')
59     {
60         if(ch=='(') push(ch);
61         else
62             if(isalnum(ch)) postfix[k++] = ch;
63         else
64             if(ch==')')
65             {
66                 while(stack[top]!='(')
67                     postfix[k++] = pop();
68                 elem = pop();
69             }
70             else
71             {
72                 while(pr(stack[top]) >= pr(ch))
73                     postfix[k++] = pop();
74                 push(ch);
75             }

```

input



```

47
48 int main()
49 {
50     char infix[50], postfix[50], ch, elem;
51     int i=0, k=0;
52
53     printf("Enter the Infix expression: ");
54     scanf("%s", &infix);
55
56     push('#');
57
58     while((ch=infix[i++])!='\0')
59     {
60         if(ch=='(') push(ch);
61         else
62             if(isalnum(ch)) postfix[k++]=ch;
63         else
64             if(ch==')')
65             {
66                 while(stack[top]!='(')
67                     postfix[k++]=pop();
68                 elem=pop();
69             }
70             else
71             {
72                 while(pr(stack[top])>=pr(ch))
73                     postfix[k++]=pop();
74                 push(ch);
75             }
76     }
77     while(stack[top]!='#')
78         postfix[k++]=pop();
79
80     postfix[k]='\0';
81     printf("\nPostfix Expression = %s\n", postfix);
82
83     return 0;
84 }

```

Enter the Infix expression:  $(a+b)*e/(c-d)$

Postfix Expression =  $ab+e*cd-/$

...Program finished with exit code 0

Press ENTER to exit console.